ABSTRACT OF THE DISCLOSURE

ENQUEUING APPARATUS FOR ASYNCHRONOUS TRANSFER MODE (ATM) VIRTUAL CIRCUIT MERGING

A system and method for merging multiple connections that share a same class of service into a single virtual circuit (VC) in an Asynchronous Transfer Mode (ATM) network. A queuing apparatus includes multiple connection queues for each of the connections, and further includes a scheduled queue corresponding to a particular class of service, wherein contents of the connection queues are transferred into the scheduled queue before being transmitted on the VC. A reassembly queue control block (RQCB) defines a chain of buffer control blocks for the connection queues. Each buffer control block corresponds to a cell belonging to a packet of a particular connection and includes a next buffer address and a lock bit. The chain of buffer control blocks is transferred to a scheduled queue control block (SQCB) in response the lock bit indicating a last packet cell.